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Yoshio Goda

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EXAMINER

HODGE, ROBERT W

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/980,880  
Filing Date: September 03, 2002  
Appellant(s): GODA ET AL.

**MAILED**  
**MAR 15 2007**  
**GROUP 1700**

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Lawrence E. Ashery  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/24/06 appealing from the Office action mailed 9/2/05.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-3, 5, 9, 10, and 12-29.

Appellants state that claims 3 and 4 have been canceled with an amendment accompanying the Appeal Brief. However no such amendment has been received and the claims listed in the claims appendix still include claims 3 and 4.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

Appellants state that claims 3 and 4 have been canceled with an amendment accompanying the Appeal Brief. However no such amendment has been received and the claims listed in the claims appendix still include claims 3 and 4.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

Appellants state that claims 3 and 4 have been canceled with an amendment accompanying the Appeal Brief. However no such amendment has been received and the claims listed in the claims appendix still include claims 3 and 4.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

Patent Abstracts of Japan No. 08-273649, 10-1996

Patent Abstracts of Japan No. 08-339785, 12-1996

6,019,802

Ichizuka et al.

2-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

Claims 1-3, 5, 9, 10, and 12-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstracts of Japan No. 08-273649, hereinafter Onagawa in view of Nishino.

Onagawa teaches a battery with a case, positive electrode, negative electrode, electrolyte, gasket sealing plate, a filter, a cap and a valve body, wherein said cap has a convex portion and a flange portion, and said filter has a bend portion, with caulk used as a sealant, wherein the valve body covers a hole in the filter portion and the filter and

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cap are in electrical communication with one another (abstract, paragraph [0006] and figure 1).

Onagawa does not teach that a projection or a plurality thereof is/are located at the outer periphery of said flange portion or what the shape of said projection is.

Nishino teaches providing a protrusion of concentric circumference in an outer portion of said flange portion (figure 1, abstract and paragraphs [0007-0008]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a protrusion in the outer periphery of the flange portion of the sealing cap as taught by Nishino in the Onagawa reference in order to improve leakage resistance of the sealed battery. It would also be obvious to a person of ordinary skill in the art to provide a plurality of said protrusions since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Onagawa in view of Nishino as applied to claims 1-3, 5, 9, 10, and 12-29 above, and further in view of U.S. Patent No. 6,019,802 herein after Ishizuka.

Onagawa also teaches gas holes in the cap (abstract, paragraph [0006] and figure 1).

Onagawa does not teach that the battery is cylindrical in shape.

Ishizuka teaches that a battery case is cylindrically shaped, which would inherently have a cylindrical opening especially since it receives a cylinder (column 22, lines 34-36).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the case for the battery in the Onagawa reference cylindrical as taught by Ishizuka in order to easily receive the battery cell which is rolled and to use a well-known industry standard to provide batteries that can be used in multiple applications because of the standardization.

#### **(10) Response to Argument**

Appellants state numerous times in their arguments that the "Examiner has Improperly Ignored Claim Limitations". Specifically that the Examiner has not addressed the limitation of "a contact pressure of said first contact portion, is stronger than a contact pressure of a second contact portion". Said statement is inaccurate, if in fact the Examiner had ignored the recitation in the claims then the Examiner would never have made any statements with regards to said recitation ever. However as appellants have admitted, the Examiner did in fact address said limitation in the Final Office Action dated 9/2/05 in his Response to Arguments by stating that said limitation "is also given little to no patentable weight because it does not further limit the structure of the apparatus". Appellants further admit that the Examiner further addressed said recitation in the Advisory Action dated 12/14/05 stating, "any sealant has infinite contact portions and because of the chemical nature of all sealants it is inherent that there will be weak and strong contact portions". Therefore appellants' statement that the Examiner completely ignored claim limitations is inaccurate, which is also admitted to by appellants, see page 10, first full paragraph and last full paragraph, and page 14, lines 2-4 of appellants' arguments in the appeal brief.

As recited in the claims a "caulked portion includes a strong contact portion and weak contact portion between the surface of the outer periphery end of said flange and said bend portion", and "said strong-contact portion is formed from a contact of said projection and said bend portion". So this supposed strong contact portions is essential located around the projection and the bend portion in the caulked portion. Regardless of that explanation, the weak and strong portions are still located in the caulking of the battery seal. However there is no definition in the claims or the specification defining what makes the strong contact portion and what makes the weak contact portion. The Examiner stated in the Final Office Action dated 9/2/05 that those supposed portions do not define structurally over the prior art. Appellants apparently have chosen to ignore that because appellants have never responded with any sort of explanation showing the Examiner how structurally this strong contact portion and weak contact portion are different than what has been presented to them in the Prior Art. It is still the Examiners position that said feature is not properly defined as a structural limitation and that said feature is inherent in the prior art already because all seals including caulk will chemically form a better seal in some areas versus others especially when curing and other factors of how the seals are set are considered.

When comparing the two prior art references appellants state that the entire reference must be considered and have compared the intended use of both prior art inventions. However the Examiner is relying on the conceptual teaching of a protrusion taught by Nishino as part of the outer periphery of the flange portion of the battery cap, which is clearly seen in figure 4 and labeled as 1a. Nishino states that the purpose of

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adding this protrusion is to improve the fluid leakage resistance of a sealed battery. Onagawa teaches a sealed battery that has all of the features of the instant invention except for the protrusion located at the outer periphery of the flange portion of the battery cap. Therefore it is the Examiner's position that by adding the conceptual feature of a protrusion to the outer periphery of the flange portion of the battery cap will improve the fluid leakage resistance of the sealed battery of Onagawa as taught by Nishino, especially since this is the purpose of Nishino. Nowhere did the Examiner ever state that he is taking the cap and gasket of Nishino and providing it in Onagawa as appellants suggest on page 12, first full paragraph.

In response to appellants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. Therefore it is not hindsight reasoning for the Examiner to take an expressed teaching from the prior art of improving fluid leakage resistance in a sealed battery and use said teaching as motivation for combining with another prior art reference. Regardless of whether or not appellants are doing the same thing for the same reason.

Appellants also argue that the strong contact portion forms around the projection. It is also the position of the Examiner that the invention of Onagawa as modified by



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Nishino will also inherently have a strong contact portion formed around the protrusion especially since there will be a spring action against the protrusion when the cap is pressed in place.

With regards to the rejections of claims 1-29 under 35 U.S.C. 112, first paragraph, although the limitations in the claims are not literally supported by the specification, the specification does infer that the strong and weak contact portions will have strong and weak contact pressures. Therefore the rejection was withdrawn as was also discussed in the Pre-Appeal Conference.

Therefore the Examiner has met his burden and has in fact addressed every claim limitation with regards to the prior art and has also made a clear *prima facie* case of combining references and showing obvious modifications within the teachings of the prior art.

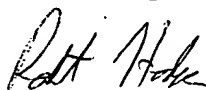
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Robert Hodge



Conferees:

Michael Barr

Roy King

  
ROY KING  
SUPERVISORY PATENT EXAMINER

**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**

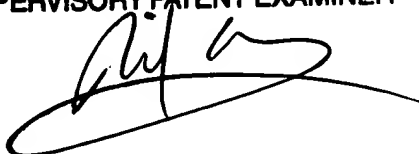


Figure 2 is a diagram showing the relationship between the battery temperature and the valve actuation pressure of the safety apparatus.

Figure 3 is a longitudinal cross-sectional diagram of the upper portion of the enclosed type battery.

#### Explanation of the reference symbols

- 1 Case
- 2 Sealing plate
- 2a Gas passage hole
- 3 Gasket
- 5 Positive electrode terminal
- 5a Gas releasing outlet
- 6 Valve chamber
- 7 Elastic valve body

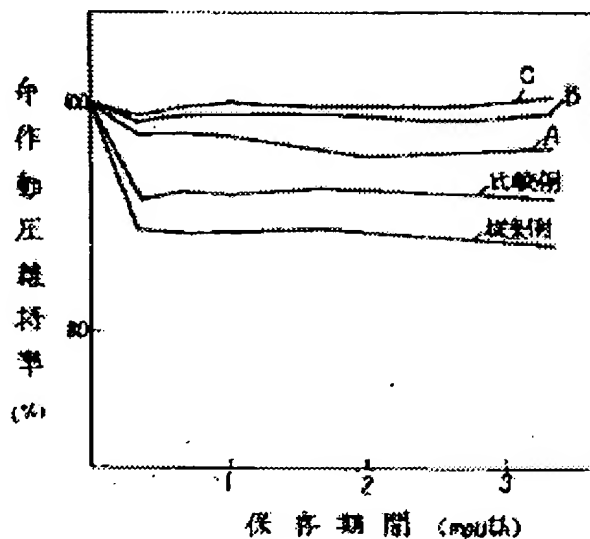


Figure 1

- Key:
- 1 Valve actuation pressure retention ratio (%)
  - 2 Storage period (month)
  - 3 Comparative example
  - 4 Conventional example

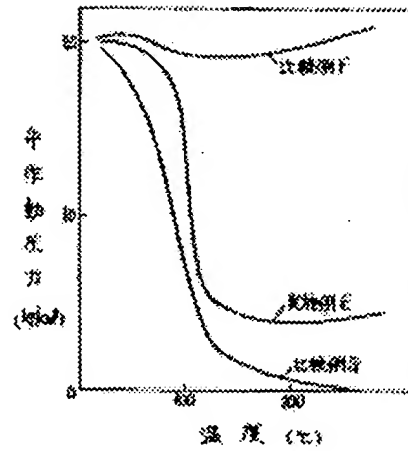


Figure 2

- Key:
- 1 Comparative Example F
  - 2 Application Example E
  - 3 Comparative Example G
  - 4 Valve actuation pressure vs. Temperature
  - 5 Temperature

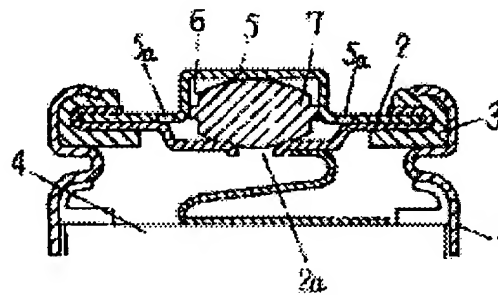


Figure 3